

AMENDMENTS TO THE CLAIMS

1. (Original) An image forming apparatus that has a duplex printing function, wherein while transporting a recording medium, after recording an image formed on an image carrier to a first side of the recording medium, this recording medium is re-transported towards the image carrier and an image formed on the image carrier is recorded on a second side of this recording medium that differs from the first side, the image forming apparatus comprising:

a switching means for switching the transport position of the recording medium when recording the image on the recording medium, such that it differs in the direction perpendicular to the recording medium transport direction when recording the image on the first side and when recording the image on the second side.

2. (Original) The image forming apparatus according to claim 1, wherein the transport position of the recording medium when recording the image on either the first side or the second side of the recording medium is set to a paper passage standard position of the recording medium on the image carrier.

3. (Currently amended) The image forming apparatus according to claim 1 ~~or~~ 2, further comprising a discharge portion for discharging the recording medium on which the image has been printed;

wherein the switching means has an offset function, provided in this discharge portion, that varies the discharge position of the recording medium that is discharged; and

wherein the transfer position of the recording medium when recording an image on the recording medium is switched by the offset function of the switching means.

4. (Currently amended) The image forming apparatus according to ~~any of claims 1 through 3~~ claim 1,

wherein the image forming apparatus comprises an optical unit that writes image information on the image carrier; and

when writing image information on the image carrier, the optical unit separately sets an image information writing point for recording the image to the first side of the recording medium, and an image information writing point for recording the image to the second side of the recording medium.

5. (Original) The image forming apparatus according to claim 4,

wherein the optical unit comprises a writing timing detection sensor that sets the timing for writing image information onto the image carrier; and

wherein the writing points are set by changing the writing timing from the writing timing detection sensor.

6. (Currently amended) The image forming apparatus according to ~~any of claims 1 through 5~~ claim 1, wherein the transfer position of the recording medium is set to a region in which it is possible to operate a plurality of transfer rollers disposed in the transfer path of the recording medium, the image carrier, a fixing mechanism, a transfer mechanism, and, a developing mechanism disposed in the vicinity of the image carrier, various charging mechanisms, and a cleaning mechanism.

7. (Currently amended) The image forming apparatus according to ~~any of claims 1 through 6~~ claim 1, wherein the transfer position of the recording medium is switched such that it differs when recording an image to the first side and when recording an image to the second side, and satisfies the relational expression

(Distance of change in the transport position) <

$$[(\text{width of the image carrier}) - (\text{maximum width of the recording medium used for printing})] / 2.$$

8. (New) The image forming apparatus according to claim 2, further comprising a discharge portion for discharging the recording medium on which the image has been printed;

wherein the switching means has an offset function, provided in this discharge portion, that varies the discharge position of the recording medium that is discharged; and

wherein the transfer position of the recording medium when recording an image on the recording medium is switched by the offset function of the switching means.

9. (New) The image forming apparatus according to ~~any of claims 1 through 3~~ claim 2,

wherein the image forming apparatus comprises an optical unit that writes image information on the image carrier; and

when writing image information on the image carrier, the optical unit separately sets an image information writing point for recording the image to the first side of the recording medium, and an image information writing point for recording the image to the second side of the recording medium.

10. (New) The image forming apparatus according to ~~any of claims 1 through 3~~ claim 3,

wherein the image forming apparatus comprises an optical unit that writes image information on the image carrier; and

when writing image information on the image carrier, the optical unit separately sets an image information writing point for recording the image to the first side of the recording medium, and an image information writing point for recording the image to the second side of the recording medium.

11. (New) The image forming apparatus according to ~~any of claims 1 through 5~~ claim 2, wherein the transfer position of the recording medium is set to a region in which it is possible to operate a plurality of transfer rollers disposed in the transfer path of the recording medium, the image carrier, a fixing mechanism, a transfer mechanism, and, a developing mechanism disposed in the vicinity of the image carrier, various charging mechanisms, and a cleaning mechanism.

12. (New) The image forming apparatus according to ~~any of claims 1 through 5~~ claim 3, wherein the transfer position of the recording medium is set to a region in which it is possible to operate a plurality of transfer rollers disposed in the transfer path of the recording medium, the image carrier, a fixing mechanism, a transfer mechanism, and, a developing mechanism disposed in the vicinity of the image carrier, various charging mechanisms, and a cleaning mechanism.

13. (New) The image forming apparatus according to ~~any of claims 1 through 5~~ claim 4, wherein the transfer position of the recording medium is set to a region in which it is possible to operate a plurality of transfer rollers disposed in the transfer path of the recording medium, the image carrier, a fixing mechanism, a transfer mechanism, and, a developing mechanism disposed in the vicinity of the image carrier, various charging mechanisms, and a cleaning mechanism.

14. (New) The image forming apparatus according to ~~any of claims 1 through 5~~ claim 5, wherein the transfer position of the recording medium is set to a region in which it is possible

to operate a plurality of transfer rollers disposed in the transfer path of the recording medium, the image carrier, a fixing mechanism, a transfer mechanism, and, a developing mechanism disposed in the vicinity of the image carrier, various charging mechanisms, and a cleaning mechanism.

15. (New) The image forming apparatus according to ~~any of claims 1 through 6~~ claim 2, wherein the transfer position of the recording medium is switched such that it differs when recording an image to the first side and when recording an image to the second side, and satisfies the relational expression

$$\begin{aligned} & (\text{Distance of change in the transport position}) < \\ & [(\text{width of the image carrier}) - (\text{maximum width of the recording medium used for} \\ & \text{printing})] / 2. \end{aligned}$$

16. (New) The image forming apparatus according to ~~any of claims 1 through 6~~ claim 3, wherein the transfer position of the recording medium is switched such that it differs when recording an image to the first side and when recording an image to the second side, and satisfies the relational expression

$$\begin{aligned} & (\text{Distance of change in the transport position}) < \\ & [(\text{width of the image carrier}) - (\text{maximum width of the recording medium used for} \\ & \text{printing})] / 2. \end{aligned}$$

17. (New) The image forming apparatus according to ~~any of claims 1 through 6~~ claim 4, wherein the transfer position of the recording medium is switched such that it differs when recording an image to the first side and when recording an image to the second side, and satisfies the relational expression

(Distance of change in the transport position) <

$$[(\text{width of the image carrier}) - (\text{maximum width of the recording medium used for printing})] / 2.$$

18. (New) The image forming apparatus according to ~~any of claims 1 through 6~~ claim 5, wherein the transfer position of the recording medium is switched such that it differs when recording an image to the first side and when recording an image to the second side, and satisfies the relational expression

(Distance of change in the transport position) <

$$[(\text{width of the image carrier}) - (\text{maximum width of the recording medium used for printing})] / 2.$$

19. (New) The image forming apparatus according to ~~any of claims 1 through 6~~ claim 6, wherein the transfer position of the recording medium is switched such that it differs when recording an image to the first side and when recording an image to the second side, and satisfies the relational expression

(Distance of change in the transport position) <

[(width of the image carrier) – (maximum width of the recording medium used for printing) ]/ 2.